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(54) Title: FLEXIBLE OPTICAL DEVICE

(57) Abstract: A flexible and optionally highly elastic waveguide capable of propagating and emitting light is disclosed. The flexible waveguide comprises a flexible material having a surface and an end, wherein a first portion of the light is emitted through at least a portion of the surface of the flexible waveguide, and a second portion of the light is emitted through the end. The flexible waveguide can be used, for example as an area illuminator for many applications. Additionally disclosed is a clothing device for providing illumination. The clothing device comprises clothing (or even optionally a sheet) and a light source for providing light. In one embodiment the clothing device comprises the flexible waveguide.